

REVIEWS OF BOOKS

GENETICS

Sturtevant, A. H., and Beadle, G. W.
An Introduction to Genetics. Philadelphia and London, 1939. W. B. Saunders Co. Pp. 391. Illustrated. Price 14s.

THIS new textbook of genetics differs from most similar works by the method of presentation. Instead of adopting an historical approach, the authors introduce the chromosomal theory of inheritance right at the beginning. The first chapter deals actually with the sex-chromosomes, and this enables the authors to use early the simple examples of sex-linked inheritance in *Drosophila*. From the teaching point of view, this is a great advantage, if actual class experiments are to run parallel with the lectures. The examples are mostly drawn from *Drosophila* and maize, although a number of cases in other organisms are occasionally mentioned. The treatment throughout is very lucid, though of necessity condensed. The problems given at the end of each of the 23 sections are very well thought out and cleverly selected.

Particular stress is laid on linkage, chromosome maps, the relations of crossing-over to meiosis, crossing-over in attached X-chromosomes, closed X-chromosomes, inversions, translocations, deletions, in short, on formal genetics. Excellent diagrams are present in abundance. On the other hand, physiological genetics, evolutionary problems and population genetics are given comparatively little space. Therefore, while the book gives the student an excellent introduction to formal genetics, it might with advantage be supplemented by another work in which other aspects of genetics receive a somewhat fuller treatment.

The text is thoroughly up to date and remarkably free from minor mistakes. In a new edition, it would be desirable to replace the symbols used for the albino series in rabbits and the agouti series in mice (pp. 198 and 199) by those which have by now been

generally accepted in Anglo-Saxon genetical literature. Although the principle of "pure lines" is discussed, that term seems to occur nowhere in the book; the term "pure line" is sufficiently important for the student not to be passed over in silence.

H. G. HILL.

Sansome, F. W., and Philp, J. *Recent Advances in Plant Genetics.* Second Edition, revised and rewritten by F. W. Sansome. London, 1939. J. & A. Churchill Ltd. Pp. xii+412. Price 18s.

ALTHOUGH the main structure of cytogenetics was already in existence in 1932, when the first edition of this work appeared, the flow of literature has been increasing ever since. The new edition brings the book up to date with these new developments. In addition several alterations have been made, of which the most valuable are a key to the literature arranged under subject-matter headings and a chapter on chimæras and somatic variegation.

To appreciate this book it is necessary to have a clear idea of its purpose. It is in no wise a textbook of genetics, nor is it an account of recent advances only, as its title might lead one to believe. The bulk of it is made up of summaries of individual pieces of research, loosely connected together by the author's own comments. There are also introductory explanations at the beginning of the corresponding sections. It is unavoidable that in a work of this kind papers of very different quality should be reviewed for the sake of completeness. A reader who does not already possess a perspective of genetic literature will not find much to help him to discriminate among the innumerable pieces of research mentioned. A biologist wishing to get a general idea of modern genetics will find the book very difficult to read, for the framework on which facts are presented is of the lightest. The research worker, on the other hand,